Owner's Manual & Safety Instructions

Save This Manual Keep this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures. Write the product's serial number in the back of the manual (or month and year of purchase if product has no number). Keep this manual and the receipt in a safe and dry place for future reference.





2.5 LITER ULTRASONIC CLEANER

Visit our website at: http://www.harborfreight.com Email our technical support at: productsupport@harborfreight.com

REV 14j

When unpacking, make sure that the product is intact and undamaged. If any parts are missing or broken, please call 1-888-866-5797 as soon as possible.

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No portion of this manual or any artwork contained herein may be reproduced in any shape or form without the express written consent of Harbor Freight Tools.

Diagrams within this manual may not be drawn proportionally. Due to continuing improvements, actual product may differ slightly from the product described herein.

Tools required for assembly and service may not be included.

AWARNING

Read this material before using this product. Failure to do so can result in serious injury. SAVE THIS MANUAL.

IMPORTANT SAFEGUARDS

When using electrical products, especially when children are present, basic safety precautions should always be followed, including the following:

READ ALL INSTRUCTIONS BEFORE USING

DANGER – To reduce the risk of electrocution:

- 1. Always unplug this product immediately after using.
- 2. Do not use while bathing.
- 3. Do not place or store product where it can fall or be pulled into a tub or sink.
- 4. Do not place in or drop into water or other liquid.
- 5. Do not reach for a product that has fallen into water. Unplug immediately.

WARNING – To reduce the risk of burns, electrocution, fire, or injury to persons.

- 1. Close supervision is necessary when this product is used by, on, or near children or invalids.
- Use this product only for its intended use as described in this manual. Do not use attachments not recommended by the manufacturer.
- Never operate this product if it has a damaged cord or plug, if it is not working properly, if it has been dropped or damaged, or dropped into water. Return the product to a service center for examination and repair.
- 4. Keep the cord away from heated surfaces.
- Never block the air openings of the product or place it on a soft surface, such as a bed or couch, where the air openings may be blocked. Keep the air openings free of lint, hair, and the like.

- 6. Never use while sleeping or drowsy.
- 7. Never drop or insert any object into any opening or hose.
- 8. Do not use outdoors or operate where aerosol (spray) products are being used or where oxygen is being administered.
- 9. Connect this product to a properly grounded outlet only. See Grounding Instructions.
- Unplug this product before filling. Fill tank with water only unless otherwise specified by manufacturer. Do not overfill.



SAVE THESE INSTRUCTIONS.

Cleaning

Caution Statements

To prevent serious injury from accidental operation, make sure the Power Switch of the Ultrasonic Cleaner is in its "OFF" position and unplug the Ultrasonic Cleaner from its electrical outlet before performing any procedure in this section.

Instructions

- After use, clean the water tank of the Ultrasonic Cleaner with a clean, damp cloth. Remove any oil and residue after each use.
- 2. Do not clean with flammable or corrosive liquids.

User Maintenance

Caution Statements

- Product service must be performed only by qualified repair personnel. Service or maintenance performed by unqualified personnel could result in a risk of injury.
- When servicing this product, use only identical replacement parts. Use of unauthorized parts or failure to follow maintenance instructions may create a risk of electric shock or injury.
- Do not store the Ultrasonic Cleaner where it can fall or be pulled into a tub, sink or other free-standing pool of water.
- WARNING! This product has no user serviceable parts.

Instructions

- 1. Before each use, inspect the general condition of the Ultrasonic Cleaner. Check for:
 - · loose hardware
 - · cracked or broken parts
 - · damaged electrical wiring, power plug or cord
 - any other condition that may affect its safe operation.

If a problem occurs, have the problem corrected before further use.

Do not use damaged equipment.

Disconnect the Power Cord Plug from the power source before storing the Ultrasonic Cleaner to reduce the risk of starting the product accidentally.

- Store the Ultrasonic Cleaner indoors in a dry location. Keep out of the reach of children and other untrained persons. Ultrasonic Cleaners are dangerous in the hands of untrained users.
- Maintain product labels and nameplates.
 These carry important safety information.
 If unreadable or missing, contact
 Harbor Freight Tools for a replacement.
- 5. WARNING! If the supply cord of this Ultrasonic Cleaner is damaged, it must be replaced only by a qualified service technician.

Operations

Caution Statements

- Read the <u>ENTIRE</u> IMPORTANT SAFEGUARDS section at the beginning of this manual including all text under subheadings therein before set up or use of this product.
- 2. Do not use the product if the Power Switch does not turn it on or off. Any product that cannot be controlled with the Power Switch is dangerous and must be replaced.
- Maintain a safe working environment. Make sure there is adequate surrounding workspace. Do not use this product in a damp or wet location.
- People with pacemakers should consult their physician(s) before using this product. Electromagnetic fields in close proximity to a heart pacemaker could cause interference to or failure of the pacemaker.
- 5. Do not immerse the Ultrasonic Cleaner in liquid.
- Do not place the Ultrasonic Cleaner where it can fall or be pulled into a tub, sink or other freestanding pool of water. Operate the product on a dry, level surface capable of supporting the Ultrasonic Cleaner and its contents.
- 7. Do not submerge non-waterproof products into the water.

- 8. Do not use for medical purposes or for cleaning medical or dental implements.
- Do not overfill the Cleaner. Use water or an appropriate ultrasonic cleaning fluid only to the maximum fill line when filling the tank.
- 10. Do not clean multiple objects at a time. Using many objects in the tank at one time will cause them to bang against one another, damaging both the articles being cleaned and the tank.
- 11. Use only lukewarm water. Excessively hot water will damage the Transducer. Do not use penetrating oils in the Cleaner as they may damage the Cleaner and any materials being cleaned. Do not use volatile solvents, gasoline, or other flammable liquids.
- 12. Do not abuse the Power Cord. Do not use the Power Cord to carry the product or pull the Plug from an outlet. Keep the Power Cord away from heat, oil, sharp edges, or moving parts. Replace damaged Power Cords immediately. Damaged Power Cords increase the risk of electric shock.
- 13. WARNING: The cord of this product contains lead and/or di (2-ethylhexyl) phthalate (DEHP), chemicals known to the State of California to cause cancer, and birth defects or other reproductive harm. Wash hands after handling. (California Health & Safety Code § 25249.5, et seq.)

Instructions

FAILURE TO FILL THE ULTRASONIC CLEANER WITH WATER OR A NON-CORROSIVE CLEANING MATERIAL (SOLD SEPARATELY) BEFORE USING WILL SEVERELY DAMAGE IT AND VOID THE WARRANTY.

- 1. This product is for household use.
- Make certain that the unit is turned OFF and that it is unplugged. Insert one end of the Power Cord into the Ultrasonic Cleaner, and the other end into a 120 VAC outlet.
- 3. Place article to be cleaned onto the Screen inside the Tank.
- 4. Fill the Tank with water or an appropriate ultrasonic cleaning fluid so the article is covered and the fluid is between the minimum and maximum fill lines. Specially formulated ultrasonic cleaning products are safe for most materials. Plastic-safe cleaning fluids are recommended. Use water that is lukewarm (under 149° F). Excessively hot fluid will damage the Transducer. Close the Tank Lid.
- 5. Choose from 1 of 5 cleaning cycles: 90S, 180S, 280S, 380S, or 480S. 180S (180 seconds or three minutes) is the typical cycle for cleaning.

- 6. Press "SET" to choose a cleaning cycle. Press "ON" to begin the cleaning cycle. A green light on the control panel will light up, indicating that the cycle is on. The time displayed on the LCD readout is the time remaining for the cycle to run. The unit will automatically turn itself off when the readout reaches zero. Refer to Figure 1: Control Panel.
- On some occasions, the initial cleaning may not adequately clean the article. A second cycle of cleaning usually finishes the cleaning process.
 Pressing the "ON" Button will restart the cycle.
- 8. To pause or stop the cycle, press "OFF".
- When finished, unplug the Ultrasonic Cleaner. Open the Tank Lid and remove the item using tongs.

Cleaning With Heat

- Press the "TC" Button to use the heat function during a cycle of the Ultrasonic Cleaner. A red light on the control panel will light up, indicating that the Heat cycle is on.
- On some occasions, the initial cleaning may not adequately clean the article. A second cycle of cleaning usually finishes the cleaning process. Pressing the "ON" Button will restart the cycle.
- Note: The Ultrasonic Cleaner has an automatic safety shut-off to avoid overheating. To prevent overheating and damaging the product, do not use more than 3 cycles in a fifteen minute period. This automatic safety shut-off will be activated after 45 minutes of continuous use. Should this happen, allow the unit to cool off for fifteen minutes before resuming use.
- 3. To pause or stop the cycle, press "OFF".
- 4. When finished, unplug the Ultrasonic Cleaner. Open the lid and carefully remove the item using tongs because the fluid will be hot.

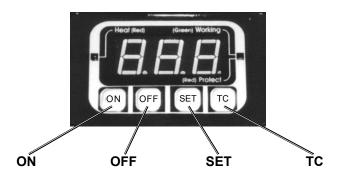


Figure 1: Control Panel

Troubleshooting

Problem	Possible Causes	Probable Solutions
Cleaner will not start	No power at outlet.	Check power at outlet.
	2. Cord not connected.	2. Check that cord is plugged in.
	Automatic overheating safety shut-off feature has tripped.	Allow fifteen minute cool-down period before attempting to use the Ultrasonic Cleaner.

Grounding Instructions

This product should be grounded. In the event of an electrical short circuit, grounding reduces the risk of electric shock by providing an escape wire for the electric current. This product is equipped with a cord having a grounding wire with a grounding plug. The plug must be plugged into an outlet that is properly installed and grounded.

DANGER–Improper use of the grounding plug can result in a risk of electric shock.

- If repair or replacement of the cord or plug is necessary, do not connect the grounding wire to either flat blade terminal. The wire with insulation having an outer surface that is green with or without yellow stripes is the grounding wire.
- 2. Check with a qualified electrician or serviceman if the grounding instructions are not completely understood, or if in doubt as to whether the product is properly grounded.
- This product is for use on a nominal 120V circuit, and has a grounding plug that looks like the plug illustrated in sketch A in Figure 2: Grounding Methods. A temporary adapter, which looks like the adapter illustrated in sketches B and C, may
- be used to connect this plug to a 2-pole receptacle as shown in sketch B if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet (sketch A) can be installed by a qualified electrician. The green colored rigid ear, lug, and the like extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box cover. Whenever the adapter is used, it must be held in place by the screw.
- 4. If it is necessary to use an extension cord, use only a three wire extension cord that has a three-blade grounding plug, and a three-slot receptacle that will accept the plug on the product. Replace or repair a damaged cord.

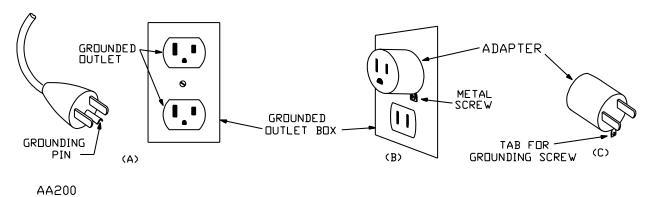


Figure 2: Grounding Methods

Specifications

Electrical Requirements	120 VAC / 60 Hz / 160 W	
Power Cord	4' 8", 18 AWG X3C SVT, 3-prong, 160 W	
Dimensions	7-1/4" H x 11-3/8" L x 9" W	
Tank Dimensions	3" D x 9-3/4" L x 5-1/2" W	
Tank Capacity	2.5 L	
Heated Water Temperature	149° F	
Ultrasonic Frequency	42 kHz	





FCC Statement:

This equipment generates and uses radio frequency energy, and if not installed and operated in strict accordance with the manufacturer's instructions, may cause radio frequency interference.

This equipment has been verified to comply with the limits in Part 18 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment is found to be the source of radio frequency interference, which can be determined by turning the equipment off and on, the user should try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The manufacturer is not responsible for any interference caused by unauthorized modification to this equipment.

Record Product's Serial Number Here:	

Note: If product has no serial number, record month and year of purchase instead.

Limited 90 Day Warranty

Harbor Freight Tools Co. makes every effort to assure that its products meet high quality and durability standards, and warrants to the original purchaser that this product is free from defects in materials and workmanship for the period of 90 days from the date of purchase. This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, criminal activity, improper installation, normal wear and tear, or to lack of maintenance. We shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special or consequential damages arising from the use of our product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS.

To take advantage of this warranty, the product or part must be returned to us with transportation charges prepaid. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection verifies the defect, we will either repair or replace the product at our election or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.



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